

Summary

Future health:
sustainable places for
health and well-being



About this report

Future health tells us how good design makes healthy places.

It brings what CABI has learned about sustainable, health-promoting environments together with the latest thinking about health and well-being.

It uses real examples and research to point out the win-wins that can happen across the health, well-being and sustainability agendas, and tells us why and how:

- Planners can have long-term positive effects on public health, for example through supporting green infrastructure and sustainable transport networks
- Healthcare trusts can bring down carbon footprints and reduce costs by integrating and co-locating health and community services
- Designers and health estates managers can influence peoples' wellbeing through sustainable design
- Policymakers can help truly healthy, sustainable communities happen by emphasising the whole-life value of early and integrated decision-making.

Accordia, Cambridge. Felicia Clegg Bradley © David Millington photography

Making places cycle and pedestrian friendly gives people the chance to make healthy activity part of everyday life



Health, well-being and the environment are interdependent. We need to take care of them together, by making strategic and collaborative decisions early on and by being efficient with resources

The changing health landscape

From the perspective of those planning and building places that affect people's health, an all-inclusive approach to public health is emerging. It values the prevention of disease and the promotion of long-term health and mental well-being as highly as treating the symptoms of illnesses.

From the perspective of healthcare service providers, the idea of quality of place has taken root in the design of individual buildings and places. Modern healthcare is under pressure to provide individually tailored care in safe and effective facilities. The buildings must be responsive to shifting patterns of sickness, population, patient expectations, technological advances in treatments and climate change.

Good design can create high quality, sustainable places that meet a wide range of goals. There's a realisation that enabling healthy lifestyles can mean long-term savings in health treatment costs. These can be through incremental improvements or renovation; and not necessarily complete redevelopment. It's worth remembering that simple, more targeted interventions can make long-term savings on revenue costs. The focus here is on quality of place, from the wider built environment down to individual health premises.

It is important that health authorities and local planning authorities work together more closely in the future. This will give the strategic oversight required to deliver high-quality healthcare developments. More collaborative working will ensure that maximum health, well-being and sustainability benefits accrue from every development.

There's a realisation that enabling healthy lifestyles can mean savings in health treatment costs

© Ashley Bingham and Mark Ellis, A&M Photography

Even moderate physical activity can help against cognitive decline



1 Promoting health and well-being

Our view of health is changing to encompass a social as well as a medical model. It sees health and well-being as interdependent; prevention as important as cure; and long-term solutions as necessary as treatment.

Greater emphasis is being placed on lifestyle, personal responsibility and social change to enable the population to make healthier choices. We now see that good health is determined by a range of factors – many of them linked to the quality, accessibility and sustainability of our physical environment.

Obesity and related diseases cost the NHS an estimated £4.2 billion a year – a figure that is forecast to more than double by 2050.¹ Excess weight can be prevented or managed through physical activity. Moderate activity can be as successful as medication at treating depression, if not more so – and is linked to combating cognitive decline, an important factor for our ageing population.

Evidence increasingly suggests that people with access to quality green space are healthier. Being outside can promote mental well-being, relieve stress, overcome isolation, improve social cohesion and alleviate physical problems so that fewer working days are lost to ill health.

In *The value of public space*, CABE found that some doctors are prescribing a walk in the park to patients because exercise has been shown to halve the risk of a heart attack, diabetes or colon cancer.

£4.2 billion	Annual cost to the NHS of obesity and related diseases
50 per cent	Reduction in risk of heart attack by a daily walk in the park
91 per cent	People who believe that public parks and open spaces improve quality of life
300 per cent	Increased likelihood of residents being physically active in residential areas with high levels of greenery. ²

When the immediate environment is unattractive, it is difficult to make physical activity and contact with nature part of everyday life. Unsafe, ‘unwalkable’ urban areas, which lack greenery and are dominated by traffic, will discourage us. Inclusive, accessible environments that encourage walking, cycling and other activities have a positive effect on health and well-being.

Green space should be budgeted, planned and carefully designed. It should be incorporated into existing communities and into refurbishments and new buildings. This can mean landscaping, informal green spaces, planting on street corners, pocket parks, gardens and balconies. This should be encompassed in local, regional and national planning process.

Quality green space should be a goal encompassed in local, regional and national planning process



©Mark Ellis and Ashley Bingham, ICD Photography

1 University of California news release 2009, *Maintaining or increasing physical activity slows cognitive decline in elders.* cabeurl.com/37
2 Greenspace Scotland 2009: *Health impact assessment of greenspace: a guide.* cabeurl.com/30

2 Modernising healthcare

Perceptions of health and well-being are changing the way healthcare is organised and delivered.

Rising patient expectations, an ageing population, greater understanding of unhealthy lifestyles, medical and technological innovations, and the demands of an IT-led society all require more integrated health services. There is a drive to improve quality and effectiveness by organising care around patient pathways. While acute hospitals concentrate on specialist treatment, less demanding care is being shifted closer to patients' homes, into treatment centres and community hospitals, and integrated with other community services.

If the major building programmes of the last years are affected by public sector cuts, with more limited spending on capital and revenue, there will be even greater need to improve care delivery.

Health premises will need to be efficient and effective, for example with rooms that can be used for multiple purposes, and any improvements or refurbishments to existing estates to be thoroughly planned so they're fit for the future.

Healthy, therapeutic places:

- are comfortable rather than institutional, bringing down barriers to healing
- put people in contact with the natural environment through views, planting and landscaping
- Exploit natural light, and use natural ventilation wherever possible
- Are skillfully designed to minimise overheating and reduce energy use.

Breast Care Centre, St Bartholomew's Hospital, Greenhill Jenner Architects © Nigel Greenhill



Natural light has a therapeutic, calming effect in times of stress - and using it helps keep down energy bills

Good health is determined by a range of factors – many of them linked to the quality, accessibility and sustainability of our physical environment

Hospital buildings are becoming more flexible. Patients look for greater privacy and dignity, with single bedrooms fitted with controllable lighting and heating, and views onto attractive external spaces. Visitors want a welcoming ambience, with hospitality services like cafes and shops, and overnight accommodation.

In CABE's *Healthy hospitals* survey of 2004, directors of nursing reported that hospital design was a 'very important' factor in recruiting and retaining nursing staff.

Primary and community services have to be welcoming, therapeutic and healthy places, with environmentally friendly measures to maximise natural ventilation and natural daylight.

Many buildings fail to meet this new model of healthcare provision. Some are badly located, while others are poorly designed. Extra care must be taken in design and space management when housing various services together.

100	Number of new hospitals built or under construction between 1997 and 2010
93 per cent	Directors of nursing who believe that hospital design is either important or very important for the recruitment and retention of nursing staff
1 in 20	Health buildings achieving satisfactory sustainability ratings in CABE's survey of the design of primary care buildings
1.4 million	Number of missed medical appointments per year due to difficulty in reaching health facilities.

The benefits of integrating and improving services will be fully realised only if the design and setting create a therapeutic environment that works for patients and staff; if buildings are adaptable and responsive to changes in healthcare delivery; and if services are easy to get to on foot, bicycle and public transport.



Airy, welcoming reception area at the Kentish Town Health Centre, where health workers and doctors now communicate better and resources are saved through space-sharing. See case study on p16

AHMM Architects © Rob Parrish

3 Addressing climate change

Reducing carbon emissions is the only way to limit climate change and mitigate its effects on health.

Some extreme weather events in the UK have been attributed to climate change, such as heatwaves and floods. The 2003 heatwave in Europe is estimated to have caused 3,000 premature deaths in the UK.

Half of the UK's CO2 emissions are from buildings, with the NHS being responsible for 3 per cent of these.³ Personal transport to and from work and school also has a significant impact on air pollution, which is estimated to cause 12,000 to 24,000 premature deaths in the UK each year.⁴

23 per cent	Proportion of an individual's CO2 emissions accounted for by personal transport and the associated infrastructure
20,000 per year	Number of UK heat-related deaths predicted by 2050 due to more frequent and severe heatwaves ⁵
40 per cent	Increase in CO2 emissions by the NHS since 1990 ⁶
26 per cent	Required reduction in CO2 emissions by 2020.

Living within environmental limits is crucial to future health and well-being. Urgent action is required now to reduce carbon emissions by 26 per cent worldwide by 2020 in accordance with the 2008 Climate Change Act.

Sustainability and design quality are indivisible. For instance, it is essential to consider weather and temperature fluctuations when designing facilities or places meant to encourage healing and good health. Strategic action is required to create well-located, sustainable, high-quality healthcare buildings and green surroundings that improve the patient experience and overall health and well-being.

Sustainable design:

- uses service space efficiently, minimising energy and resources
- uses renewable energy and sustainable materials
- exploits planting and greenery to increase cooling and water run-off
- uses passive design techniques such as thermal massing, natural ventilation and natural lighting to reduce energy use, and to improve long-term value for money
- means locating services in accessible places that can be reached on foot, bicycle or public transport.

City landscaping can set positive precedences in reducing the urban heat island and encouraging wildlife. Landscaped roofs are now practically a prerequisite in Chicago thanks to their City Hall roof. See case study on p11



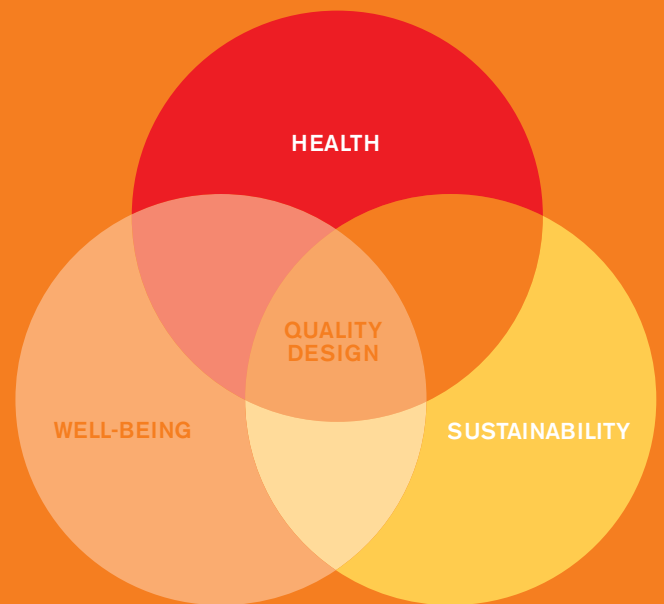
Conservation Design Forum © Andi Cooper, Conservation Design Forum

3 NHS SDU 2009: *Saving carbon, improving health: NHS carbon reduction strategy for England*. cabeurl.com/5l
4 British Lung Foundation 2009: *Prevention of respiratory disease*. cabeurl.com/5m
5 NHS Sustainable Development Commission 2008: *Healthy futures: the NHS and climate change*. cabeurl.com/3f
6 NHS SDU 2009: *Saving carbon, improving health: NHS carbon reduction strategy for England*. cabeurl.com/5l

Living within our environmental limits is crucial to our future health and well-being



The future of health – what you can do



When used carefully, design can deal with complex requirements in simple ways. It can create sustainable places that enhance people's health and well-being and improve service delivery.

The Venn diagram above shows the interrelationship between health, well-being and sustainability, and how quality design to address one can benefit the others.

Policymakers and commissioners and providers of public places, health and other public services need to identify where they can make a difference across the spatial scale. The following pages suggest where and how this can happen.

**Healthier lifestyles,
integrated services, lower
carbon footprints – how
can these be brought together
to benefit our communities
and future generations?**

How design can be a catalyst for change

Across the scale, from cities down to individual buildings, considered and coordinated design interventions can make a difference to health and well-being.

Most of the actions suggested here can be directly facilitated by joined-up thinking integrated into the planning of buildings and places.

Health should be addressed in a spatial and locally distinctive way, addressing health inequalities and access to health services

If you influence the future of towns and cities

By international standards, English towns and cities generally under-perform in terms of quality of life. The World Health Organisation says that a healthy city is 'continually creating and improving the physical and social environments and expanding the community resources that enable people to mutually support each other in performing all the functions of life and in developing to their maximum potential.'⁷

Policymakers need to be aware that planning at town and city scale can be a powerful tool in positive incremental change. Much is already being done to tackle well-being and sustainability. Sustainable transport plans are becoming more common, for instance, but there is still some way to go for them to be a standard component of all new developments. Health authorities should be further integrated into the planning and policymaking system in this way to benefit public health.

Join up policies and initiatives

Planners should work with health trusts to integrate health and well-being into the core strategies that guide development – and these strategies should not be seen as planning strategies alone. Health should be addressed in a spatial and locally distinctive way, addressing health inequalities and access to health services.⁸ Making plans for health improvements into a core requirement of local development frameworks (LDFs) – which look to the next 20 years – is a significant step towards this. NHS London's Healthy Urban Development Unit have produced guidance on health within the core strategies of LDFs which could be more widely adopted by strategic health authorities and local authorities across the country.⁹ Health should be addressed in a spatial and locally distinctive way, addressing health inequalities and access to health services¹⁰

Local authorities and primary care trusts should collaboratively reinforce their assessments of local communities' health and well-being. Initiatives such as joint strategic needs assessments (JSNAs) go some way towards this, but producing needs analysis data does not in itself lead to change. Improvements have to be planned strategically and mapped on to budgetary and service planning cycles.¹¹ It should be linked to housing, transport investment and joining up health and social care. Positive collaborative working can be encouraged by joint commissioning of people and projects.

Green routes and centres

Integrate city-wide networks of planting and green infrastructure¹² to manage air quality, mitigate against heat island effects, and reduce noise and stress.



The **City of Chicago** has enacted legislation that requires landscaping around parking lots and more energy-efficient building practice. The council encourages residents to plant trees to increase the shading of buildings and parking lots, and increase the amount of vegetation overall. Projects include the rooftop garden on the City Hall; a permeable and reflective alley on the North Side; miles of planters; and campuses that transform the tarmac car parks around schools into parks.
www.cityofchicago.org

Plan developments that discourage motor traffic to reduce CO2 emissions. Investing in public transport, walking and cycling networks will help to improve air quality, promote cardiovascular health and be more cost effective.

The Bucks Strategic Partnership is tackling health inequalities through active travel and environmental improvements. As part of this, the Buckinghamshire Primary Care Trust plays a major role in promoting public health. The healthy communities strategy emphasises the wider determinants of health and well-being: promoting physical activity through walking, lower carbon emissions for all public sector organisations, and recognising in their strategy that “improving the physical and social environment is essential if health and well-being are to be improved.”
www.buckspartnership.co.uk

Create healthy networks

Develop a city-wide hierarchy of acute primary and community health facilities that join up delivery of services from hospital to home.

Locating health facilities alongside other public amenities such as shopping centres and public squares can bring healthcare into everyday life. Local development frameworks can be a useful vehicle for this.

Co-ordinate existing and proposed health service networks so that they are linked both with larger facilities located at major hubs and with more local services within walking distance of the communities they serve. This encourages ease of access by foot or bike – reducing car usage, lowering CO2 emissions and the likelihood of traffic accidents.

Picton Health Centre, MBLA architects © Daniel Hopkinson



Liverpool NHS Primary Care Trust and Liverpool & Sefton LIFTco are locating healthcare facilities according to pedestrian access. The equitable provision of healthcare facilities across the city followed a survey of residents that identified an optimum 15-minute maximum walking time to any health centre. A network of new treatment centres are being sited across the city within 15 minutes walk of every residential address.
www.lshp.co.uk

7 Healthy Cities Alliance 2007: *Healthy Cities*. cabeurl.com/5j

8 Healthy Urban Development Unit 2008: *Health and Urban Planning Toolkit*. cabeurl.com/31

9 *Ibid*

10 *Ibid*

11 University of the West of England 2008: *Joint Strategic Needs Assessment. Research Forum Report*. cabeurl.com/39

12 CABI 2009: *Open Space Strategies*. cabeurl.com/7m

If you affect the shape of neighbourhoods

Well-planned cities and towns are made up of identifiable neighbourhoods where health services, housing and community resources are integrated and served by sustainable transport and where the potential of green space is maximised. They need collaborative thinking from local authorities and health services.

Development at a neighbourhood scale can range from small-scale interventions in established communities through to the wholesale redevelopment or regeneration of failing urban areas, or the creation of new communities.

The local development framework should set the overall strategic vision for well-being in an area, but, in individual neighbourhoods, focussed attention should be paid to:

Encourage compact, mixed-used sustainable developments

Make quality local services into a focal point of neighbourhoods, fostering a sense of local identity and pride, and improving the quality of life for people living and working there.

Manage and maintain places to make them look cared for. Places can also be made safer by encouraging organised activities in parks and open spaces, avoiding blank frontages, positioning windows to overlook public routes and spaces, and using good street lighting.

Double up the benefits by locking sustainability into a masterplan. Locate service hubs near public transport, and vice-versa. Develop shared energy resources, as in the case of Southampton's district-wide heating and chilling system.

Southampton has developed the first geothermal energy and combined heat and power (CHP) **district heating and chilling scheme** in the UK. Despite initial setbacks, the city council persisted with the project and now has a CHP generator and absorption heat pumps that powers residential development, hotels, shopping centres and a working port. Royal South Hampshire Hospital has also reduced CO2 emissions with its own CHP plant.
cabeurl.com/3i

Kaleidoscope Children and Young People's Centre, van Heyningen & Howard Architects © Nick Kane



Well-landscaped internal courtyards give therapeutic visual relaxation, and importantly aid wayfinding, like at this centre for children with special needs

Provide sustainable transport solutions

Use urban design to reduce the distances people have to travel to get around and help them find their way. Use overlooking and natural surveillance to help those on foot feel safer.

Use traffic calming measures that reduce traffic speeds to 20 mph in residential and built-up areas. This not only lowers the speed, but also the volume of traffic, and the frequency and severity of traffic accidents. The use of home zones helps prioritise pedestrian movement and makes communities less dominated by traffic.

Ensure pedestrian and cycling routes connect local services to residential development, including shops, schools, community and leisure facilities and workplaces.

Well-planned cities and regions are made up of identifiable neighbourhoods where health services, housing and community resources are integrated and served by sustainable transport, and where the potential of green space is maximised

Maximise the potential of green space

Encourage more trees and more planting to create carbon sinks, improve air quality, manage water resources and provide shade in summer. Green spaces need not be conventional parks they can be informal planted areas, green roofs, or pocket parks. Planting and urban landscaping should be made a requirement for new developments.

Make your parks into safe, well-managed green spaces. Create therapeutic places for relaxation, social interaction and exercise. As well as making people feel better, well-managed parks absorb pollution in urban areas and encourage active lifestyles, as seen at Mile End Park, below.

Provide quality play spaces for all ages. Well-designed public play spaces can help children to start off healthy and tackle obesity by providing opportunities for exercise and outdoors enjoyment. The best play spaces are imaginative enough to engage all ages in activity.

© Michele Turiani



Before its refurbishment, **Mile End Park** was a bleak, fragmented, under-used open space in the centre of Tower Hamlets, an authority with a large population and little good quality open space. The park now houses a leisure centre and gym, and provides safe, attractive and healthy pedestrian and cycle routes. Neighbouring roads are heavily used and congested. It has become an invaluable green chain of open space and tranquillity through London's East End.

www.cabe.org.uk/case-studies/mile-end-park

Encourage the creation and upkeep of allotments.

This promotes physical exercise, healthy eating, and reduces carbon emissions from food miles. Food growing can become a community initiative.

© Incredible Edible Todmorden



Todmorden, a town in West Yorkshire, aims to become self-sufficient in vegetables, orchard fruits and eggs by 2018 through a community-led, grow-your-own initiative. This commitment for local people to produce food for local consumption has transformed the way residents use and enjoy food and public green space. Ultimately, the town plans to source the majority of staple food locally, including meat and dairy.

www.cabe.org.uk/case-studies/incredible-edible-todmorden

© The Fold Care Farm, Worcestershire

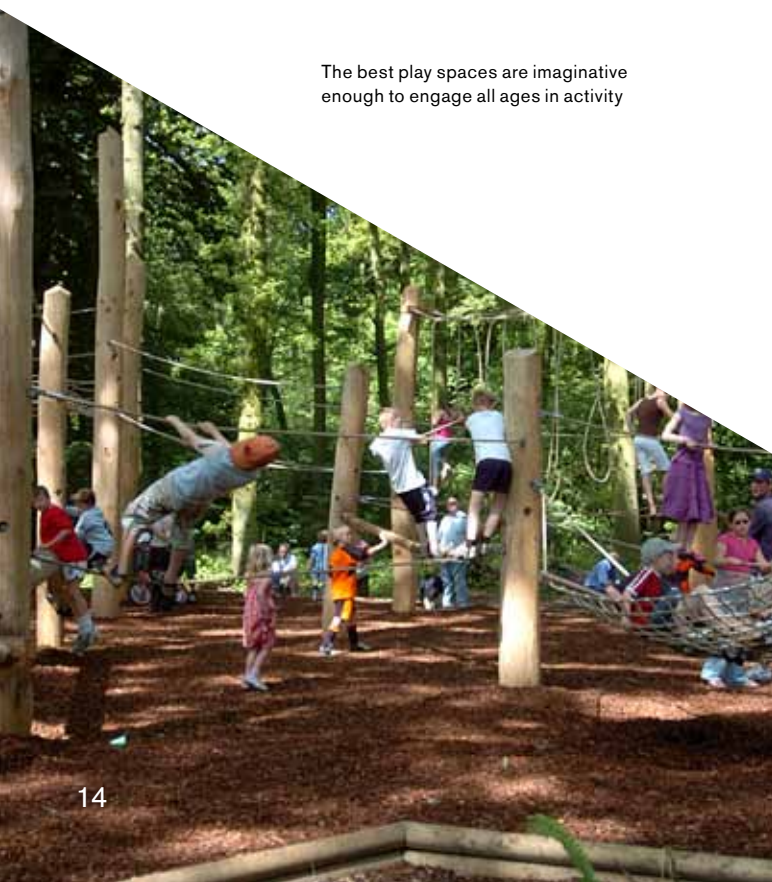


With the **National Care Farming** initiative, partnerships are formed between farmers, health and social care agencies, and participants, with the aim of developing the potential of individuals rather than focusing on their limitations. Commercial farms, woodlands and market gardens are used as a base for promoting mental and physical health through normal farming activity.

www.ncfi.org.uk

Providing access to nature can reduce stress, improve mental well-being and relieve the sense of overcrowding in urban environments. Care farming is an example of improving well-being through outdoor activity.

The best play spaces are imaginative enough to engage all ages in activity



Coombe Country Park, Coventry © Timberplay

Providing access to nature can reduce stress and improve mental well-being

If you are running or delivering health buildings

Buildings can have a positive effect on health and well-being, minimise energy bills and help protect the environment.

The team planning, designing, constructing or using a new building should consider wider health and well-being benefits, rather than deliver on narrow goals.

Healthcare buildings can perform better if they act as a focus for the community, designed to reflect local character. Externally and internally, they should be 'healing places' that both feel good to be in and increase service efficiency through innovative design. They need to be inclusive and easily accessible. Siting, landscaping, creative use of materials, colour, and works of art all help to communicate a sense of personalised care, rather than an institutional service.

Create therapeutic environments

Use natural light and ventilation, and exploit views of greenery through well-placed windows, to help reduce stress, which is a barrier to healing. Plowright Surgery is an example of a building that used passive design measures such as natural lighting and to great effect.



The award-winning **Plowright Surgery** in Norfolk is one of the best-performing new buildings in the NHS estate. The cost implications were dealt with pragmatically by the architect, the contractor and the Norlife LIFTco. The carbon footprint was reduced through sustainable building materials, clever orientation and passive temperature control.

Specify materials from sustainable sources that are robust, durable and create a non-institutional feeling – these can raise our spirits.

Encourage physical activity. Easily accessible trails and attractive vistas can be used to encourage physical exercise on easily accessible trails. Locating attractive staircases in convenient places will also encourage walking and reduce the use of lifts and escalators.

Create places with strong identity and local character, using interiors that relax patients and visitors. This can also contribute to the quality of care.

Maggie's Highlands, Inverness. Page & Park architects © Ashley Bingham and Mark Ellis, ICD Photography



Maggie's Cancer Support Centres offer a community of advice and support for cancer patients within carefully designed and welcoming buildings that have a domestic feel. Each centre is situated beside an NHS Cancer Hospital and has been designed to be as un-institutional as possible, with light, space and warmth. The heart of the centre is always the informal kitchen area. In 2009 Maggie's London became the first health building to win the most prestigious UK architecture award, the RIBA Stirling Prize.

Making services accessible and efficient

Rather than operating in isolation, it is essential to have a strategic view of individual services as functioning parts of an overall network, all geared up to meet shared objectives.

Primary care services must be well served by public transport and within cycling or walking distance of the communities they serve. Bringing other services and activities into healthcare buildings will create a community focus and integrate services, as in the case of Bunny Hill Centre, Sunderland, where healthcare, social care and leisure and community services are under one roof.

Technology can improve services by increasing operational efficiency, making services more convenient and reducing the need to travel. Robotics in particular are set to change the way hospitals operate, as shown by the smart technology adopted by Akershus Hospital in Norway.



Sunderland's **Bunny Hill Customer Service Centre** brings GP services, a minor injuries and illness unit, a community café, social services, library, housing office, gym and Sure Start children's centre under one roof. A strategic vision, based on an overview of where services were needed, was developed with strong backing from the local authority and other agencies. An information campaign advised local people how to use the new services: where, for example, GPs can take patients for gym inductions. This collaborative approach has seen a marked decrease in behavioural problems amongst young people using the services.

Adaptable accommodation

Buildings should be easily adapted to future changes in the delivery of services and carbon reduction technologies. They need allowances for extensions or reconfiguration. Design should also support multi-functional uses so that teams from different services can be accommodated.

AHMM © Rob Parrish



Kentish Town Health Centre in London houses a large GP practice and facilities including children's services, breast screening, dentistry and mental health. Clinical rooms are shared by consultants who simply swap name plates on doors. Open-plan offices ensure communication between health workers and the sharing of clinical expertise. The building was shortlisted for the 2009 RIBA Stirling Prize.

CF Møller architects © Torben Eksnerod



At **Akershus Hospital, Oslo**, a motorised system distributes medication from a pharmacy store in the hospital direct to wards, using robots. Clean, sterilised staff uniforms are distributed daily from vending machines to keep infection levels down.

How can design sustain health and wellbeing?

A holistic approach to healthcare, wellbeing and sustainability – how we make it happen

We have to rethink how we make decisions about improvements, whether large or small – and it is often the simple solutions that give long-term value, enabling healthy lifestyles, rejuvenating communities, easing the pressure on services and bringing down CO2 levels.

Green infrastructure, planting and well thought-out public space can:

- encourage physical activity and well-being, through exercise and growing food
- help mitigate carbon emissions and urban heat islands
- increase local pride, sense of safety and identification with an area.

Accessible locations for integrated services, with pedestrian and cycle routes, can:

- help cut CO2 levels and the need for vehicular transport
- create focal points, fostering community cohesion
- bring services closer and increase connectivity within communities.

Quality, therapeutic environments can:

- make use of natural light and fresh air through passive design, also reducing CO2 emissions
- exploit views of greenery, increasing well-being and reducing barriers to healing
- improve staff recruitment and retention, and increase morale.

Low-carbon design can:

- reduce embodied energy in carbon footprints through sustainably sourced materials
- bring down energy expenditure through passive design, improving long-term value for money
- maximise the use of space with flexible design that encourages communication between services and sharing of expertise.

Design interventions can create places that are long-life, loose-fit, low-carbon and catalysts for change.

So design, far from being a desirable add-on, can be a catalyst for genuine change. It can create places that are environmentally sustainable and at the same time good for people's health and wellbeing.

When open spaces can be used as pedestrian through-routes, they become community focal points, feel safer and encourage walking

Riverside walk and cathedral gardens, Norwich © Andy Hendry



It is often the simple solutions that give long-term value, enabling healthy lifestyles, rejuvenating communities, easing the pressure on services, and bringing down CO2 levels

Where can I find out more?

Designed with care: design and neighbourhood healthcare buildings

www.cabe.org.uk/publications/

[designed-with-care](#)

CABE report examining 15 of the best neighbourhood healthcare buildings in the country, from a doctor's surgery to an NHS walk-in centre. The case studies show how high design quality creates a human, inclusive and reassuring environment.

Fit for the Future

cabeurl.com/36

Report from the NHS Sustainable Development Unit arguing that the NHS must take urgent action now to play a leading role in the response to climate change if it is to provide the best quality healthcare. It details a set of scenarios and recommends five key steps to creating a sustainable low-carbon healthcare system.

Guide to town planning for NHS staff

cabeurl.com/2y

Guide from the Department of Health explaining the planning system in England with reference to issues specific to the NHS. It aims to ensure that the needs of the health service are taken into consideration, and met, from planning policy through to planning applications.

Healthy hospitals: radical improvements in hospital design

cabeurl.com/2z

Research by CABE and PriceWaterhouse Coopers showing how important clinical staff feel the design of healthcare premises is and why. It outlines CABE's 10 points for a well-designed healthcare building.

Health impact assessment of greenspace – a guide

cabeurl.com/30

Advice from Greenspace Scotland on how to assess the health and equity impacts of green space projects; and minimise any negative and maximise positive impacts.

The health and urban planning toolkit

cabeurl.com/31

NHS London Healthy Urban Development Unit (HUDU) guide setting out a step-by-step approach to improving working between primary care trusts and local planning authorities.

Integrating health into the core strategy

(cabeurl.com/32) shows how PCTs can influence the spatial plans that councils need to prepare.

The Health Practitioner's Guide to Climate Change: Diagnosis and Cure

eds. Jenny Griffiths, Mala Rao, Fiona Adshead, Allison Thorpe, 2009

An introduction for health practitioners to climate change and its current and future health impacts, describing the relationship between health and the environment, and setting out the huge benefits to health of acting on climate change and how to design healthy, sustainable communities.

Manual for Streets

cabeurl.com/5k

Guide from the Department for Transport emphasising that streets should be places in which people want to live and spend time in, and are not just transport corridors. It aims to reduce the impact of vehicles on residential streets by asking practitioners to plan street design intelligently and proactively, and gives a high priority to the needs of pedestrians, cyclists and users of public transport.

Open space strategies: best practice guidance

cabeurl.com/7m

Practical guidance from CABE to local authorities and their stakeholders on how to prepare, deliver, monitor and review an open space strategy.

Planning for places: Delivering good design through core strategies

cabeurl.com/7p

CABE document produced to help local authorities take a spatial approach to their strategy. Drawing on workshops, it helps planners place good design at the heart of their core strategies.

RTPI good practice note 5: Delivering healthy communities

cabeurl.com/33

Note from the Royal Town Planning Institute highlighting the delivery of safe, healthy and attractive places to live as key objectives of spatial planning. It advocates the integration of public health and spatial planning processes, enabling both to promote health through the delivery of neighbourhoods that provide opportunities for active lifestyles.

Saving carbon, improving health; NHS carbon reduction strategy for England

cabeurl.com/34

This Department of Health strategy illustrates the scale of carbon reduction required for the NHS to progress towards the Climate Change Act requirements and recommends how the NHS can become a leading sustainable and low carbon organisation.

Sustainable Healthcare Architecture

eds. Robin Geuthner, Gail Vittori, 2008

A key reference for the design of sustainable healthcare facilities, with case studies of more than 50 of the best contemporary sustainable healthcare buildings from around the world.

Tackling obesity: future choices

cabeurl.com/35

Foresight, which is part of the Government Office for Science, collected scientific evidence to highlight the relationship between greenery, aesthetics, upkeep of neighbourhoods, physical activity and obesity.

Sustainable Cities

www.sustainablecities.org.uk

CABE-run web resource giving local authority decision makers expert advice, clear priorities for action and examples of good practice in sustainable urban design and management.

The Sustainable Development Commission

www.sd-commission.org.uk

The SDC's Healthy Futures programme (cabeurl.com/7v) helps the NHS and wider health sector explore how they can promote improved health and stronger, more sustainable communities. The SDC's Good Corporate Citizenship model, www.corporatecitizen.nhs.uk, describes how NHS organisations embrace sustainable development.

SHINE Learning Network for Sustainable Healthcare Buildings

www.shine-network.org.uk

SHINE helps NHS Trusts to improve the sustainability performance of their new build projects by providing guidance, education and support. The SHINE website has case studies on exemplary sustainable healthcare buildings.

The value of public space

cabeurl.com/7o

The value of public space shows how cities in the UK and around the world have received far-reaching economic, health and social benefits from making the best of their public spaces.

Future health explains how good design makes healthy places. It brings together what CABA knows about sustainable, health-promoting design with the latest thinking about individual health and well-being. Drawing on examples and research, it shows how good planning can have a positive impact on public health, how health trusts can cut carbon and costs by co-locating services, and how designers can influence peoples' well-being. The publication will be of interest to health trusts, planners, policymakers and premises providers. A full report on CABA's website offers the detailed research behind this summary.

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Commission for Architecture
and the Built Environment

The government's advisor
on architecture, urban design
and public space

CABA is the government's advisor on architecture, urban design and public space. As a public body, we encourage policymakers to create places that work for people. We help local planners apply national design policy and advise developers and architects, persuading them to put people's needs first. We show public sector clients how to commission projects that meet the needs of their users. And we seek to inspire the public to demand more from their buildings and spaces. Advising, influencing and inspiring, we work to create well-designed, welcoming places.

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